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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,337	12/22/2004	Nancy Dean	H9925-3405	9316
<div>7590      03/23/2007 Sandra Poteat Thompson Buchalter Nemer, A Professional Law Corporation Suite 800 18400 Von Karman Irvine, CA 92612</div>			<div>EXAMINER KRUER, KEVIN R</div> <div>ART UNIT      PAPER NUMBER 1773</div>	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/23/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/519,337	<b>Applicant(s)</b> DEAN ET AL.	
	<b>Examiner</b> Kevin R. Krueer	<b>Art Unit</b> 1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 8-17 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-7, 18 and 19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/05; 1/07</u> . | 6) <input type="checkbox"/> Other: ____.  |

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-7, 18, and 19, drawn to a layered thermal component.

Group II, claim(s) 8-17 and 20, drawn to a method of making a thermal interface component.

2. The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The expression special technical features is defined as meaning those technical features that define the contribution which each claimed invention, considered as a whole, makes over the prior art. Herein, the features that each and every claim have in common fail to define a "special technical feature" because they fail to make a contribution over the prior art. Specifically, Pate et al (US 4,584,336) and Nguyen et al (US 6,238,596) anticipate the invention of claim 1.

3. During a telephone conversation with Sandra Thompson a provisional election was made with traverse to prosecute the invention of Group I, claims 1-7, 18, and 19. Affirmation of this election must be made by applicant in replying to this Office action.

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Claims 8-17 and 20 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Information Disclosure Statement***

5. The information disclosure statements filed March 21, 2005 and January 25, 2007 have been fully considered. Initialed copies of said IDSs are enclosed herein.

***Specification***

6. The abstract of the disclosure is objected to because it is not on a separate sheet. Correction is required. See MPEP § 608.01(b).

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-3, 5, 7, 18, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Nguyen et al (US 6,238,596).

Nguyen teaches a thermal interface material for an electronic component (herein understood to anticipate a semiconductor component of claims 18 and 19 and the heat

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spreader component of claim 1). The interface comprises a malenized rubber and at least on hydroxyl terminated olefin rubber (abstract). Herein the malenized rubber is understood to read on the crosslinking component of claim 2 (col 3, line 34). The composition further comprises a thermally conductive filler (col 3, lines 44+).

9. Claims 1-5, 7, 18, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Pate et al (US 4,584,336).

Pate teaches a vulcanizable organosiloxane elastomer composition comprising 30-95wt% conductive filler (abstract). The composition is useful as a thermal interface adhesive and may be applied to electronic components (herein understood to read on the claimed semiconductor component of claims 18 and 19 and the heat spreader component of claim 1). The siloxane comprises hydroxyl groups and is crosslinked with an amine (col 3, lines 38+).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-3, 5-7, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartley et al (6,084,775) in view of Nguyen.

Bartley teaches a heat sink comprising a solder layer, an adjacent thermal conductive adhesive layer, and a heat sink (see Figure 4). Bartley does not teach the adhesive of Nguyen may be utilized as the thermally conductive adhesive. However,

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the adhesive of Nguyen is functionally equivalent to said layer and exhibits improved thermal conductivity (abstract). Thus, it would have been obvious to the skilled artisan to utilize the thermal adhesive of Nguyen in the laminate taught in Bartley in order to improve the thermal conductivity of the laminate.

11. Claims 1-7, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartley et al (6,084,775) in view of Pate et al.

Bartley teaches a heat sink comprising a solder layer, an adjacent thermal conductive adhesive layer, and a heat sink (see Figure 4). Bartley does not teach the adhesive of Nguyen may be utilized as the thermally conductive adhesive. However, the adhesive of pate is functionally equivalent to said layer and exhibits improved thermal conductivity (col 1, lines 36+). Thus, it would have been obvious to the skilled artisan to utilize the thermal adhesive of Nguyen in the laminate taught in Bartley in order to improve the thermal conductivity of the laminate.

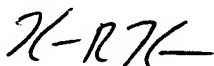
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin R. Kruer whose telephone number is 571-272-1510. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Kevin R. Kruer  
Patent Examiner-Art Unit 1773